ICF international / Laboratory Data Consultants
Environmental Services Assistance Team, Region 9
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Phone: (510) 412-2300; Fax: (510) 412-2304.

MEMORANDUM

TO: Lynda Deschambault, Remedial Project Manager
Site Cleanup Section 1, SFD-7-1

THROUGH: Rose Fong, ESAT Task Order Manager (TOM)
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00405051

DATE: April 23, 2009

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC QB02
CERCLIS ID NO.:	CAD042245001
Case No.:	38274
SDG No.:	Y4N51
Laboratory:	Mitkem Laboratories (MITKEM)
Analysis:	1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Trace Volatiles Selective Ion Monitoring (SIM)
Samples:	20 Ground Water Samples (see Case Summary)
Collection Date:	March 2 through 5, 2009
Reviewer:	Santiago Lee, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

cc: Jennie Han-Liu, CLP PO USEPA Region 1
Steve Remaley, CLP PO USEPA Region 9

CLP PO: [ ] Attention [ ] Action

SAMPLING ISSUES: [ ] Yes [X] No

Case No.: 38274
SDG No.: Y4N51
Site: Omega Chem OU2
Laboratory: Mitkem Laboratories
Reviewer: Santiago Lee, ESAT/LDC
Date: April 23, 2009

I. CASE SUMMARY

Sample Information

Samples:	Y4N51 through Y4N53, Y4N55 through Y4N70, and Y4N73
Concentration and Matrix:	Low Concentration Water
Analysis:	1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Trace Volatiles SIM
SOW:	SOM01.2
Collection Date:	March 2 through 5, 2009
Sample Receipt Date:	March 3 through 6, 2009
Extraction Date:	Not Applicable
Analysis Date:	March 11 and 12, 2009

Field QC

Field Blanks (FB):	Y4N63 and Y4N67
Equipment Blanks (EB):	Not Provided
Trip Blanks (TB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	Y4N60 and Y4N61

Laboratory QC

Method Blanks & Associated Samples:

VBLK5X:	Y4N51 through Y4N53, Y4N55 through Y4N67
VBLK5Y:	Y4N68 through Y4N70, Y4N73; storage blank VHBLK5Y

Tables

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review

CLP PO Action

None.

CLP PO Attention

None.

Sampling Issues

None.

Additional Comments

Matrix spike/matrix spike duplicate (MS/MSD) analysis was not requireed. Consequently, matrix-specific accuracy and precision could not be evaluated.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services Volatile and Semivolatile Data Packages*;
- *USEPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration*, SOM01.1, May 2005;
- *Modifications Updating SOM01.1 to SOM01.2*, Amended April 11, 2007; and
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, July 2007.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Holding Time/Preservation	Yes	
2.	GC/MS Tune/GC Performance	Yes	
3.	Initial Calibration	Yes	
4.	Continuing Calibration Verification	Yes	
5.	Laboratory Blanks	Yes	
6.	Field Blanks	Yes	
7.	Deuterated Monitoring Compounds	Yes	
8.	Matrix Spike/Matrix Spike Duplicate	N/A	
9.	Laboratory Control Samples/Duplicate	N/A	
10.	Internal Standards	Yes	
11.	Compound Identification	Yes	
12.	Compound Quantitation	Yes	A
13.	System Performance	Yes	
14.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The laboratory reported a sample quantitation limit of 0.050 ug/L for 1,2-dibromo-3-chloropropane. However, the instrument response for the 0.050 ug/L initial calibration standard was only 89 area counts, which is very low (refer to quantitation report on page 661 in data package.) In the reviewer's professional judgment, the sample quantitation limit should be raised to 0.1 ug/L, the standard having a higher area count of 176 (refer to quantitation report on page 663 in data package.) Non-detected results are reported as 0.10U in Table 1A.

ANALYTICAL RESULTS
Table 1A

Case No. : 38274 SDG No. : Y4N51
Site : OMEGA CHEM OU2
Lab : MITKEM LABORATORIES
Reviewer : Santiago Lee, ESAT/LDC
Date : 04/23/09

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Trace Level Water Samples for Volatiles SIM

Station Location :	MW3			MW7			MW11			MW21			1			2		
Sample ID :	Y4N51			Y4N52			Y4N53			Y4N55			Y4N56			Y4N57		
Collection Date :	3/2/2009			3/2/2009			3/2/2009			3/2/2009			3/3/2009			3/3/2009		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050U		
1,2-Dibromo-3-chloropropane	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.10U		A

Station Location :	3			4			5			6			7					
Sample ID :	Y4N58			Y4N59			Y4N60	D1		Y4N61	D1		Y4N62			Y4N63	FB	
Collection Date :	3/3/2009			3/3/2009			3/3/2009			3/3/2009			3/3/2009					
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050U		
1,2-Dibromo-3-chloropropane	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.10U		A

Station Location :	9			10			11						13			14		
Sample ID :	Y4N64			Y4N65			Y4N66			Y4N67	FB		Y4N68			Y4N69		
Collection Date :	3/4/2009			3/4/2009			3/4/2009						3/5/2009			3/5/2009		
Dilution Factor :	1.0			1.0			1.0			1.0			1.0			1.0		
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050U		
1,2-Dibromo-3-chloropropane	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.10U		A

Val - Validity. Refer to Data Qualifiers in Table 1B.
Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.
CRQL - Contract Required Quantitation LImit
N/A - Not Applicable
NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs
FB - Field Blank, EB - Equipment Blank,
TB - Trip Blank, BG - Background Sample

ANALYTICAL RESULTS
Table 1A

Case No. : 38274 SDG No. : Y4N51
Site : OMEGA CHEM OU2
Lab : MITKEM LABORATORIES
Reviewer : Santiago Lee, ESAT/LDC
Date : 04/23/09

QUALIFIED DATA
Concentration in ug/L

Analysis Type : Trace Level Water Samples for Volatiles SIM

Station Location :	15			18			Method Blank			Method Blank			Method Blank					
Sample ID :	Y4N70			Y4N73			VBLK5X			VBLK5Y			VHBLK5Y			CRQL		
Collection Date :	3/5/2009			3/5/2009														
Dilution Factor :	1.0			1.0			1.0			1.0			1.0					
Volatiles SIM	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**	**Result**	**Val**	**Com**
1,2-Dibromoethane	0.050U			0.050U			0.050U			0.050U			0.050U			0.050		
1,2-Dibromo-3-chloropropane	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.10U		A	0.050		

Val - Validity. Refer to Data Qualifiers in Table 1B.
Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.
CRQL - Contract Required Quantitation Limit
N/A - Not Applicable
NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs
FB - Field Blank, EB - Equipment Blank,
TB - Trip Blank, BG - Background Sample

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," July 2007.

U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.

R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Data File: \\Avogadro\Organics\V5.I\090311.B\V5K5832.D
Report Date: 12-Mar-2009 09:38

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\090311.B\V5K5832.D
Lab Smp Id: VSTD0.055X Client Smp ID: VSTD0.055X
Inj Date : 11-MAR-2009 11:50
Operator : HZA SRC: HZA Inst ID: V5.i
Smp Info : 25ML,VSTD0.055X,VSTD0.055X
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\090311.B\V5_SOMSIM.m
Meth Date : 12-Mar-2009 09:38 V5.i Quant Type: ISTD
Cal Date : 11-MAR-2009 11:50 Cal File: V5K5832.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOMSIM.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	25.000	Sample volume purged (mL)
Va	10.000	LCS Aliquot volume
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
$ 23 1,2-Dichloroethane-d4	65	5.311	5.303	(0.924)	5081	0.05000	0.052(TaQ)
* 26 1,4-Difluorobenzene	114	5.749	5.745	(1.000)	91899	0.50000	(T)
40 1,2-Dibromoethane	107	8.347	8.305	(0.946)	643	0.05000	0.040(aQ)
* 42 Chlorobenzene-d5	117	8.825	8.817	(1.000)	53548	0.50000	(T)
$ 89 1,1,2,2-Tetrachloroethane-d2	84	10.309	10.301	(1.168)	1131	0.05000	0.051(a)
* 78 1,4-Dichlorobenzene-d4	152	11.550	11.542	(1.000)	18066	0.50000	(T)
55 1,2-Dibromo-3-chloropropane	75	12.956	12.957	(1.122)	89	0.05000	0.047(Ta)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

3/14/09
HZA